

REMARKS

Applicants respectfully request favorable reconsideration of this application, as amended.

The title of the invention has been amended in response to the Examiner's requirement.

The claims have been editorially revised to improve clarity. The alleged informalities in Claims 6 and 10 have been addressed.

Independent Claim 6 stands rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,835,516 to Miyashita et al. (Miyashita). Without acceding to the rejection, Claim 6 has been additionally amended to address certain aspects of the invention previously addressed in Claims 7, 9 and 14, which have been cancelled accordingly.

As presently amended, Claim 6 recites a step (d) of selectively removing a portion of the contact layer to form a contact portion, and a step (e) of selectively removing a portion of the first semiconductor layer to form a ridge including the contact portion and a remaining portion of the first semiconductor layer beneath the contact portion (see, e.g., ridge 19 in Fig. 7). The method further includes a step (g) of forming an insulating film over the semiconductor substrate so as to cover an upper surface and sidewalls of the ridge, and a step (g) of removing the

insulating film across a first direction width of the upper surface of the ridge such that the sidewalls of the ridge remain substantially covered by the insulating film.

Applicants respectfully submit that there is no teaching or suggestion of the invention, as now defined in Claim 6, in the applied references to Miyashita, Lin and Bowen, whether considered individually or in combination. For example, the primary reference to Miyashita fails to teach a step of forming an insulating film over the semiconductor substrate so as to cover an upper surface and sidewalls of a ridge.

Lin teaches the use of an SiO<sub>2</sub> dielectric film and mentions the formation of a 2  $\mu$ m wide current window. But Lin does not teach or suggest removing an insulating film across the width of an upper surface of a ridge, while leaving the ridge sidewalls substantially covered. Thus, Lin would not have suggested modifying Miyashita in such a manner as would be necessary to achieve Applicants' invention.

Moreover, it is not at all apparent that an insulating layer as taught by Lin could be used in Miyashita without defeating the stated purposes of the Miyashita reference (see e.g., Miyashita, Col.5, lines 26-33 and Col.14, lines 50-65).

Bowen fails to overcome the deficiencies of Miyashita and Lin with respect to Claim 6 as discussed above.

Accordingly, the outstanding rejection of Claim 6 should be withdrawn, and Claim 6 should now be allowed, as should its dependents.

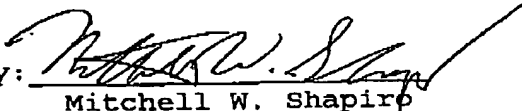
Claims 17-23 have been added to provide an additional protection to the Applicants' invention. Claim 19 is independent and distinguishes patentably from the applied references (note steps (e)-(g)), as will be appreciated from the preceding remarks regarding Claim 6.

This application should now be passed to issue.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§1.16 and 1.17 which may be required by this paper, and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and

has not been requested separately, then such extension is hereby requested.

Respectfully submitted,

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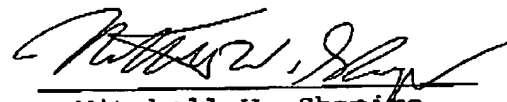
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October 12, 2005

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office on October 12, 2005.

  
Mitchell W. Shapiro